

Claim 1 has been amended to underscore certain of the distinctions between the present invention and Joiner's disclosure. Support in the specification for the "expand and contract" aspect can be found in the first paragraph on page 4. Support for the "after the frame, including trusses..." language can be found at page 2, line 28 and page 5, line 30. Support in the specification for the amendments to claims 2 and 4 and can be found beginning at page 5, line 34.

In order to evaluate patentability of applicants' claims, applicants respectfully submit that it will first be helpful to consider a fundamental distinction between applicants' claimed invention and Joiner's disclosure. In particular, applicants claim a method for reducing air infiltration in an existing building. Applicants' process is not a method of building a frame or joining components to form load-bearing elements. The wooden elements being treated by applicants' invention would have already been joined mechanically by nails or the like to achieve required strength. Applicants are therefore simply blocking air flow in a frame which has already been constructed to its required strength --- applicants are not constructing a frame. In contrast, Joiner makes no mention of blocking air flow, or improving energy efficiency. Joiner's method is for constructing a building and, in particular, for making strong, load-bearing joints in constructing a building frame. As such, the inventions are fundamentally different in terms of the problems being addressed and the goals achieved. The assignee of the current invention is an insulation company, not a builder.

With regard to specific distinctions, applicants emphasize that as stated in MPEP 2131.01, a claim is anticipated

under section 102 only if each and every element as set forth in the claim is either expressly or inherently described in a single prior art reference. Applicants respectfully submit that their claims are not anticipated because Joiner fails to disclose at least the following three requirements of applicants' claim 1 and other claims: (1) applying glue after the frame, including trusses, floors, and exterior wall panels of the building are secured in place; (2) reducing air infiltration between wooden components by treatment of abutting wooden surfaces of a frame constructed from wooden frame components; and (3) treatment of a majority of abutting surfaces to seal gaps to prevent airflow.

The first requirement stated above underscores the fundamental distinction between applicants' claimed invention and Joiner's disclosure. While Joiner discloses a method for making a building frame, applicants claim a method for treating a building only after the frame has already been secured in place. In view of the fact that the purpose of Joiner's method is to create load-bearing joints in constructing a frame, he does not disclose this requirement of applicants' invention. Furthermore, one would not use Joiner's method after such joints have been formed and the frame constructed. As such, Joiner does not anticipate this requirement of applicants' claims.

With regard to the second requirement stated above, Joiner's process relies on metal surfaces to provide an electrically conductive path for dielectric heating of his resin. In one aspect, described at column 7, lines 28-61, Joiner's process employs "electrically conductive structural components" (ln 33), or "electrically conductive molding" (ln 41) such as "iron, aluminum, magnesium, or any other conductive material" (ln 43). Even when Joiner contemplates plywood wall panels (ln 54),

his invention requires metal molding to conduct electricity to the resin. In another aspect, described in column 8, Joiner discloses application of his concept to I-beams or other "elements of steel, aluminum, etc." In view of Joiner's heavy reliance on electrical conductivity, his disclosure emphasizes the criticality of having conductive metal components as major elements throughout his structure. The only components Joiner appears to contemplate as being wooden are wall panels, and such components cannot fairly be considered to be frame components in the sense of a wooden framed house (i.e., with wooden skeleton of two-by-fours, wooden band-boards, wooden studs and headers, wooden subfloors, etc.). As such, Joiner's disclosure cannot fairly be held to anticipate the requirement of applicants' claims to treat abutting wooden surfaces of a frame constructed of wooden frame components. Applicants' claims 2 and 4 have been amended to further emphasize this distinction.

With regard to the third requirement stated above, applicants' require treatment of a majority of abutting wooden surfaces in the frame because to effectively seal sources of air infiltration requires addressing at least a majority of the interfaces between abutting wooden components. Joiner, in contrast, does not disclose treatment of a majority of abutting wooden surfaces, likely because it is only necessary to treat the joints of load-bearing members or other critical joints to achieve Joiner's objective of a solid construction. The "abutting wooden surfaces" of which applicants require treatment of "a majority of" are described in the text from page 2, line 25 through page 3, line 6, and beginning at page 5, line 34. These are also recited in specific subclaims. In particular, these include abutting wooden surfaces at double plates, double studs,

studs and headers, corner surfaces of wall frames, subfloors and exterior wall plates, bandboard surfaces and subfloors, bandboards and plates, and two-by-fours. Many of these abutting surfaces, such as the interface between double plates, and the interface between abutting two-by-fours generally, and the abutting surfaces between bandboards and plates, are not the type of joints between panels and the like Joiner appears to have been concerned with. As such, Joiner cannot fairly be deemed to disclose applicants' requirement to treat "a majority of abutting wooden surfaces."

All pending claims are respectfully submitted to be patentable over Joiner for the stated reasons. In addition, certain of the subclaims include requirements absent from Joiner's disclosure. Subclaims 2 and 4 now require that the structure comprise certain specific wooden frame components and application of glue to the abutting surfaces between such components, neither of which is disclosed by Joiner. And nowhere does Joiner make mention of the various double plates, double studs supporting windows etc. of claims 6 and 7. Nowhere does Joiner suggest intentionally drawing air into a building for testing purposes and then sealing gaps as required in claim 7. Nowhere does Joiner suggest the air infiltration requirements of claims 8 and 9. In view of the fact that Joiner's objective was to construct a building frame, and was not to prevent air infiltration in a building frame already constructed, his failure to disclose these features is not surprising.

In view of the foregoing amendments and remarks, applicants respectfully request withdrawal of the rejection over Joiner.

Declaration

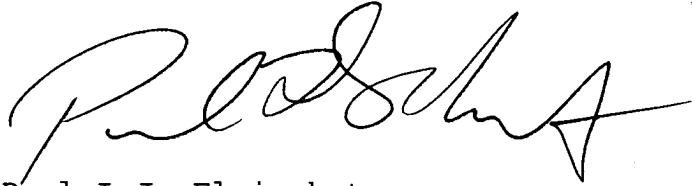
Within the next few days applicants are submitting a Declaration of one of the inventors describing certain activity involving testing of the invention more than a year prior to the priority date of this application. As stated in MPEP 2133.03(e), a use or sale of an invention which might be a bar under section 102(b) is experimental and not a bar "if it represents a bona fide effort to perfect the invention or to ascertain whether it will answer its intended purpose." Applicants respectfully submit that the Maple Acres project described in this Declaration was a bona fide effort to determine whether the invention would achieve its intended purpose, namely, to substantially reduce air infiltration. Furthermore, the actual testing of the invention to ascertain the extent to which it would answer its intended purpose, by means of the blower door tests, did not occur until after the critical date of June 4, 1996. From the information provided, applicants respectfully submit it is evident the precritical activity was experimental and was not an attempt at market penetration or other commercial activity (see MPEP 2133.03(e)(1)).

Conclusion

In view of the foregoing, applicants submit that claims 1-9 are patentable and the Examiner is requested to issue a

Notice of Allowability in this application. If any issues remain which the Examiner believes might be resolved by Examiner's amendment, he is asked to telephone the undersigned.

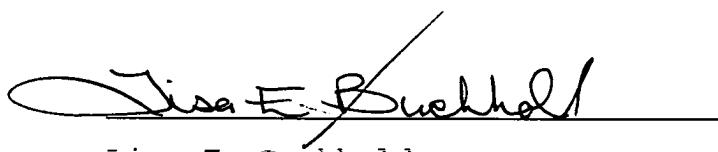
Respectfully submitted,



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CERTIFICATE OF MAILING

I certify that this AMENDMENT A in the application of Lawrence L. Staples et al., Serial No. 09/090,361, filed June 4, 1998 is being deposited with the United States Postal Service as first class mail in an envelope addressed to: BOX AMENDMENT (NO FEE), Assistant Commissioner for Patents, Washington, D.C. 20231, on this 25th day of November, 1998.



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PIF/leb